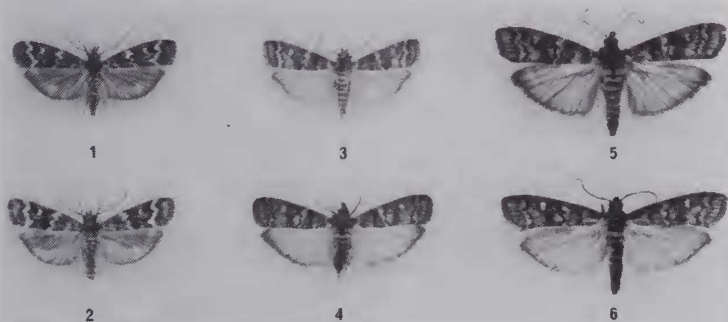


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*DIORYCTRIA SCHUETZEELLA* FUCHS, 1899:  
A PYRALID MOTH NEW TO BRITAIN

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Among a number of microlepidoptera collected at m.v. light by J. M. C. -H. at Orlestone Forest, Kent on the night of the 23rd July 1980, was a small, brightly marked *Dioryctria* that at first sight seemed referable to *D. mutata* Fuchs. However, comparison with the latter subsequently showed it to be distinct. Revisiting the locality on the 1st August 1981, J. M. C.-H. again took this *Dioryctria*, and on submitting the specimens to Dr. J. D. Bradley they were determined as *D. schuetzeella* Fuchs. On the 20th and 21st July 1981, M. W. F. T. took from his Robinson trap at Playden near Rye, East Sussex, three examples of a *Dioryctria* that at first puzzled him, but later seemed to be small strongly marked *D. abietella* D. & S. On taking the moths off the boards, however, M. W. F. T. saw they were quite distinct and took them to Mr. M. Shaffer, who identified them as *D. schuetzeella*. Although J. M. C.-H. may be credited as being the first to take *schuetzeella* in this country, it was in fact M. W. F. T. who first had the species identified and so established it as new to Britain. Specimens were exhibited at the Annual Exhibitions of the A.E.S. and B.E.N.H.S. in October 1981.



Figs. 1-6. — *Dioryctria* species. 1, *schuetzeella* ♀, Orlestone, i.viii.81; 2, *schuetzeella* ♂, Orlestone, 23.vii.80; 3-4 *mutata*, Hampshire; 5-6, *abietella*, Kent. (Photograph by D. E. Wilson). All natural size.

*D. schuetzeella* was originally described from Germany in 1899, since when it has been found to have a wide distribution on the Continent. It has occurred severally in Belgium since 1906, in which year one was bred by Lambillion from Jambes (Province de Namur) on *Pinus* on 2nd July (*teste* W. De Prins *in litt.*). Lhomme (1923-63) does not mention the species, but Leraut (1980) confirms its occurrence in France, he himself having seen specimens taken

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at Buré, Meurth-et-Moselle. According to Kuchlein, Leffef & Kleinpaste (1980), the species was first discovered in Holland in 1905, but only during the past 25 years has it been found there in other localities, and these widely separated at that, though it has sometimes occurred in large numbers. Elsewhere, *schuetzeella* has been recorded from Silesia, Austria, Finland and Rumania (Zocchi, 1961).



Fig 7. — *D. schuetzeella*, Playden, 20.vii.81  
(Photograph by M. W. F. Tweedie).

The species is at once recognisable from both *D. abietella* (figs 5, 6) and *D. mutarella* (fig 3, 4) by the presence of a pale mark in the outer area of the upperside of the hindwing. The markings on the forewing in *schuetzeella* are darker and the ground paler than in *abietella* or *mutarella*, giving *schuetzeella* a brighter appearance; moreover, *schuetzeella* is appreciably smaller than *abietella*, though it tends to be only slightly smaller than *mutarella* whose general colouration is decidedly greyer than either of the foregoing. Genitally, the main characters in *schuetzeella* are to be found in the male, and readers are referred to Petersen & Gaedike (1980), Mutuura & Munroe (1973), Albers (1958) for illustrations of the genital organs of this and related species.

Fuchs (1899) gives a detailed description of the larva of *schuetzeella*, of which there is an English translation in Mutuura & Munroe (1973), who state that "the species was described from three syntypes reared at Rachlau, Germany by K. J. Schütze, from larvae found in mid-June between the young needles of fir [spruce] *Picea excelsa*". In the series of *schuetzeella* in the British Museum (Natural History), are four topotypes labelled "Rachlau 6.8.07 e. 1. *Picea excelsa* Schütze".

In the vicinity of the place where the moth was taken at Orlestone, there are stands of *Picea excelsa* (Norway Spruce), and in the property adjoining the locality at Playden there is a plantation of conifers including a number of trees of *P. excelsa*. At Orlestone, the moth appeared in numbers in two consecutive seasons, and neither there nor at Playden, was there any indication of migration of other species during the period when *schuetzeella* occurred. We therefore have reason to believe that *schuetzeella* is established as a breeding species at both places, and hope to make a combined search for the larva in 1982.

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Mr. W. De Prins located for us the Kuchlein et al. work, translated the relevant part and confirmed the determinations of the Belgian *schuetzeella*, and to him we offer our thanks.

Finally, we are most grateful to Mr. D. E. Wilson for the excellent photograph of the set examples of *Dioryctria* (figs 1-6).

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